



CEDEFOP

European Centre for the Development  
of Vocational Training

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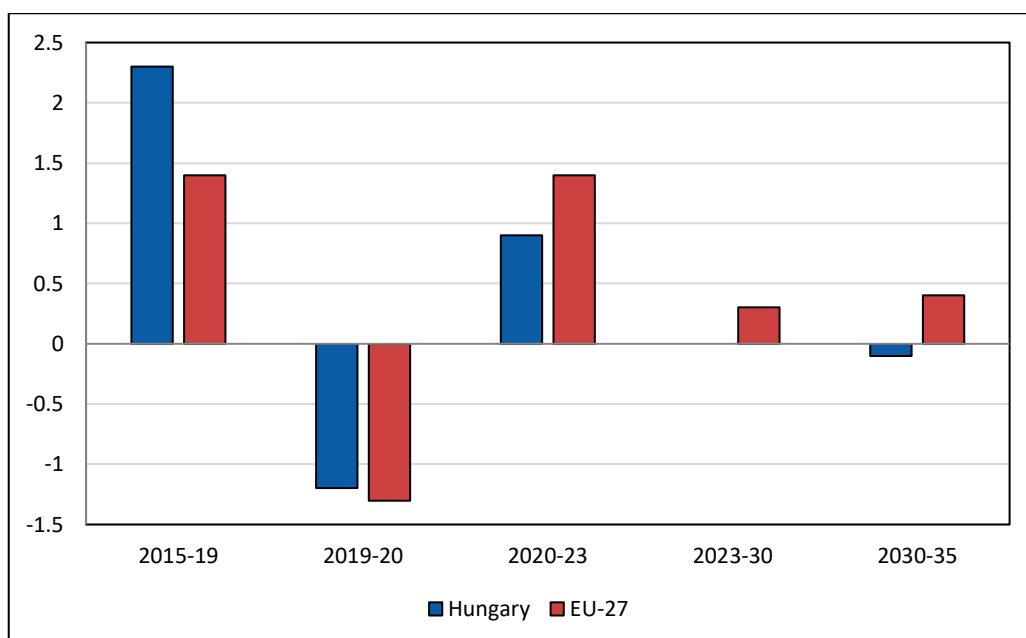
# 2025 skills forecast Hungary



# 1. Employment outlook

Employment in Hungary is forecast to shrink slightly up to 2035. Figure 1 shows that employment in Hungary grew faster than the EU-27 average over 2015-19 and fell less sharply in 2020 as the Covid-19 pandemic hit. However, employment in Hungary is estimated to have bounced back less strongly than the EU-27 over 2020-23. Across the forecast period, employment in Hungary is forecast to remain broadly static over 2023-30 and to decline by 0.1% pa over 2030-35, compared with growth of 0.3-0.4% pa over the whole forecast period for the EU-27 as a whole.

Figure 1. **Annual percentage employment growth in Hungary and the EU-27, 2015-35**



Source: Cedefop (2025 Skills Forecast).

## 2. Labour force overview

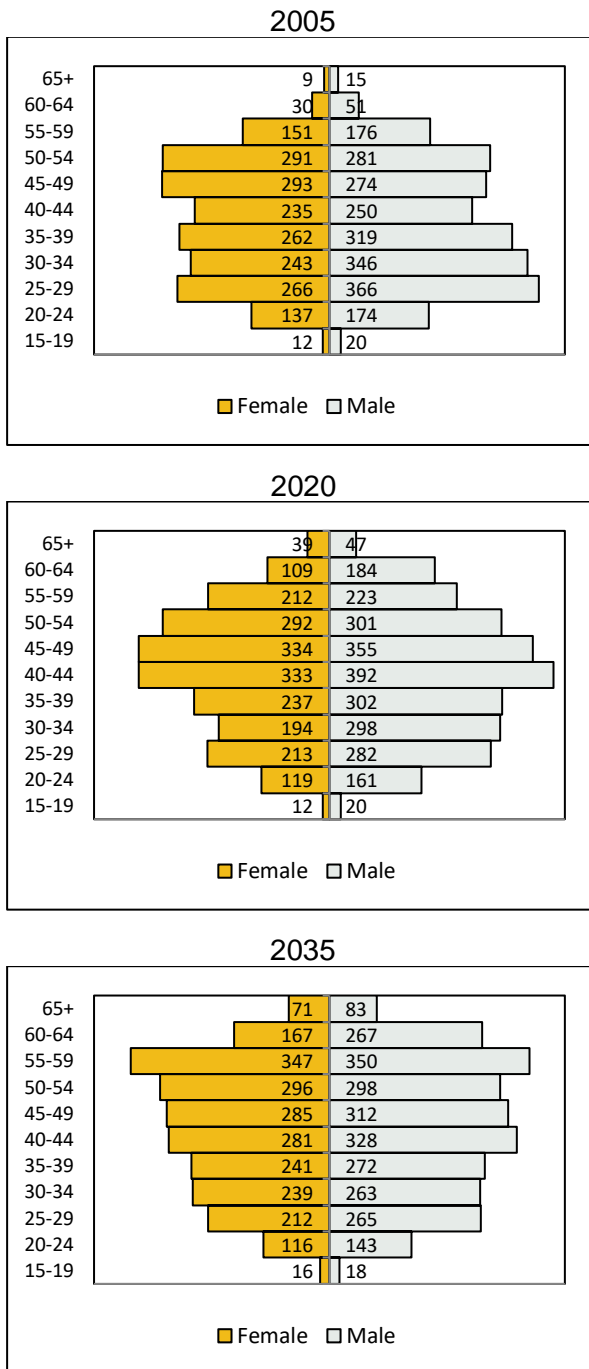
Figure 2 shows Hungary's labour force by age group in 2005, 2020 and 2035. Changes in the labour force in Hungary over the forecast period will continue to be driven by the ageing population and increasing participation rates in most age groups. The total labour force in Hungary is projected to increase by around 4.5% over 2020-35, compared to growth of 11% over the previous 15 years. It compares with an expected increase in the labour force of just under 10% over 2020-35 for the EU-27. The total participation rate in Hungary is forecast to increase by 5 pp over 2020-35, compared with an increase of 4 pp in the total rate forecast for the EU-27. Total population is forecast to decline by around 3.6% over 2020-35, slightly faster than the decline seen over 2005-20.

The population aged up to 54 is projected to decline over 2020-35, while the population aged 55 and above is forecast to grow, particularly for those aged 55-59, reflecting trends in the relevant younger cohorts in preceding periods.

Hungary's participation rates of all age groups between 25 and 64 are forecast to grow quite strongly over 2020-35, with the strongest increases projected for the 60-64 (19 pp) and 30-34 (16 pp) age groups.

As elsewhere, and due to the lower starting point, female participation rates in Hungary are generally forecast to increase more than male rates, especially for 30-39 year olds. Overall, the total participation rate for females is projected to increase by 7 pp and the rate for males to increase by 3 pp over 2020-35.

Figure 2. Distribution of the labour force (thousands), 2005-35

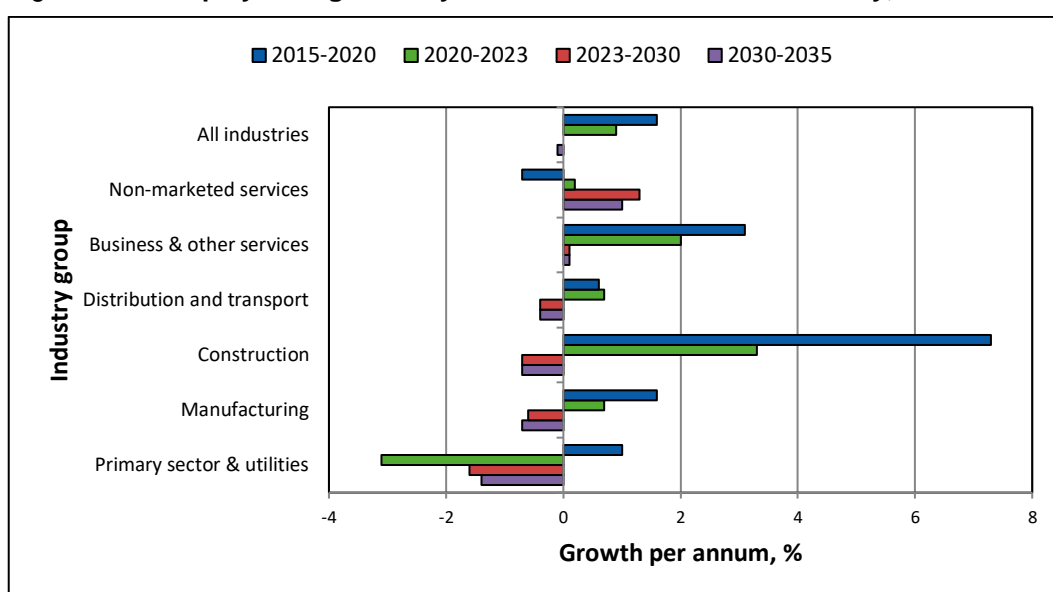


Source: Cedefop (2025 Skills Forecast).

### 3. Sectoral employment trends

Figure 3 shows annual average employment growth by broad sector in Hungary between 2015 and 2035. Only *non-marketed services* is forecast to see relatively strong employment growth (1.3% pa) over 2023-30, and *business & other services* is the only other broad sector forecast to see any, albeit very weak, employment growth, at 0.1% pa over 2023-30. *Primary sector & utilities* is forecast to see the greatest decline in employment over this period, at -1.6% pa.

Figure 3. Employment growth by broad sector of economic activity, 2015-35



Source: Cedefop (2025 Skills Forecast).

In terms of sub-sectors (i.e. below the level of the six broad sectors discussed above), the pattern of growth is more mixed. The growth in employment in *non-marketed services* is forecast to be driven by growth in *public administration & defence*. Within *business & other services*, employment growth is forecast to be strong in *research & development, market research & other professional services architectural & engineering services* and *financial & insurance services*. However, growth in some of the larger sub-sectors, such as *legal, accounting & consultancy services* is forecast to be weaker or, as is the case for *other service activities, computer programming & information services* and *administrative & support services*, negative. Within *distribution & transport*, employment in the largest sub-sector, *wholesale & retail trade* (accounting for 14% of employment in Hungary in 2020) is forecast to grow by only 0.2% pa over the whole forecast period. On the other hand, employment in the other relatively large *distribution & transport* sub-

sectors of *land transport, warehousing & postal services* and *accommodation & catering services* is forecast to decline over the whole forecast period. Within *Manufacturing*, where the sub-sectors tend to be smaller, only *optical & electronic equipment* is forecast to see relatively strong employment growth, and the larger sub-sectors of *food, drink & tobacco, motor vehicles* and *basic metals & metal products* are all forecast to see employment decline. The fall in employment in *Primary sector & utilities* is expected to be driven by a fall in employment in the *agriculture* sub-sector.

Cedefop skills forecasts estimate the total job openings by occupational group as the sum of net employment change and replacement needs. Net employment change refers to new jobs created or lost due to the expansion or contraction of employment in that sector or occupation. Replacement needs arise as the workforce leaves the occupation due to retirement or career changes. Replacement needs, generally, provide more job opportunities than new jobs, meaning that significant job opportunities arise even in occupations declining in size (i.e. agricultural workers are a typical example, as ageing workers employed in the sector will need to be replaced).

## 4. Job openings by occupational group

Figure 4 shows the total job openings by broad occupational group over 2022-35. The number of job openings indicates the number of jobs that are required to be filled due to lost/newly created jobs and those that need replacement workers.

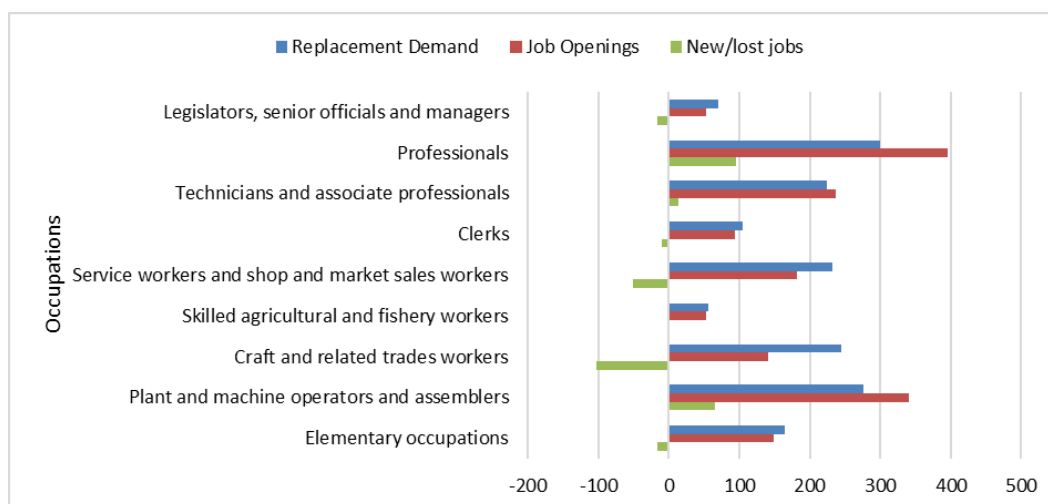
All broad occupations except for *professionals and technicians & associate professionals* and *plant and machine operators and assemblers* are expected to experience a decrease in the number of jobs over this period, reflecting the forecast by sector. There will still be many job openings due to replacement demand. *Professionals* and *plant and machine operators and assemblers* are the two broad occupations expected to generate the largest number of job openings over the forecast period, accounting for 24% and 21% of total job openings, respectively.

At the more detailed level, most job openings (taking both new/lost jobs and replacement needs together) as a share of all job openings are expected to be in *drivers and mobile plant operators* (9%), *Business and administration associate professionals* (8%), and *science and engineering professionals* (7%). None of these, are expected to see a decline in the number of jobs.

*Science and engineering associate professionals* are also expected to provide many job openings (3% of the total), driven entirely by replacement demand as the total number of jobs is expected to contract for these occupations.

Even among elementary occupations, *metal, machinery and related trades workers* and *personal service workers* are projected to see many job openings, due to replacement demand.

Figure 4. **Total job openings, 2015-35**



Source: Cedefop (2025 Skills Forecast).

## 5. Drivers of occupational change

Within the Cedefop skills forecast, future employment growth (or decline) of occupations is further broken down by separating national economic components from regional industrial and economic effects, helping to interpret what is driving the change. From this perspective, employment growth can be explained by three possible drivers: (a) overall economic trends (i.e., growth or decline), (b) shifts of employment between sectors, and (c) changes in the occupational structure within sectors (i.e., factors making some occupations more important than others).

An increasing specialisation in many sectors influences the occupational composition of employment in Hungary. This is reflected in stronger occupation-specific effects, leading to increasing shares of *professionals* and *technicians and associate professionals* in the economy. These changes reflect changes in job organisation in many sectors and, in many cases, an increasing specialisation.

Along with these specialisations there is also a move towards managing these new work forms. High-skilled occupations that can benefit from this trend are, for example, *science and engineering professionals*.

Health professionals, as well as associate health professionals, both benefit from the increase in the underlying health sector, yet not all the increases in employment translate into higher employment in these important health occupations. An increasing specialisation will also lead to a larger share of other occupations in that sector.

Therefore, the overall effect of occupational change depends on several factors that need to be considered together. Increasing digitalisation and moving towards a more service-oriented economy, including within manufacturing, will lead to a greater use of higher-level occupations. At the other end of the spectrum, lower-level occupations supporting production and the service sector seem to be decreasing as well as intermediate occupations.

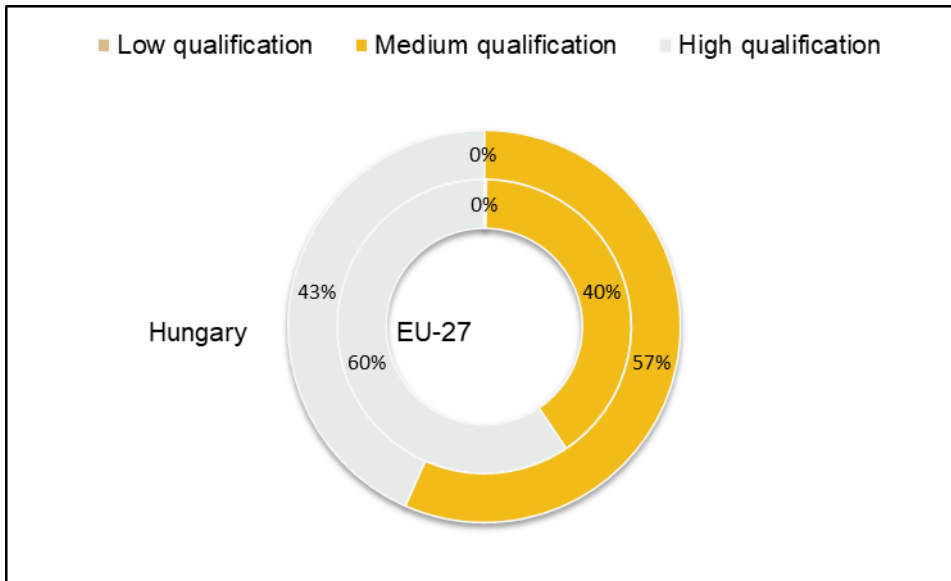
The weakness of intermediate occupations in Hungary, with an intermediate qualification level, does not limit the overall effect on medium-qualified occupations. Both *Building and related trade workers* and the industry-based *Metal, machinery, and related trade workers* are forecast to decrease in number, most likely due to increases in automation within the sectors. Clerical work is expected to decrease its employment share in all but *general keyboard* and *numerical and material clerks*.

## 6. Demand for and supply of skills

Within the Cedefop skills forecast, skills are proxied by the highest level of qualification held by individuals in the labour force and employment. Three levels are distinguished: high, medium, and low, corresponding to the official ISCED classification. The occupational group also indicates the skill level required, as some occupations (e.g. professionals) typically require high-level skills, while others (e.g. elementary) typically require only basic ones. Therefore, occupational groups are also linked to a skill level.

Figure 5, describes the share of qualification, relative to the EU average, in job openings over 2022-35. Well over half (57%) of the total job openings expected to be created in Hungary over the period up to 2035 will require medium-level qualifications, about 17 pp more than the EU-27 average (see Figure 5). Slightly more than one-third (43%) of total job openings are expected to require high-level qualifications, and none require low-level qualifications.

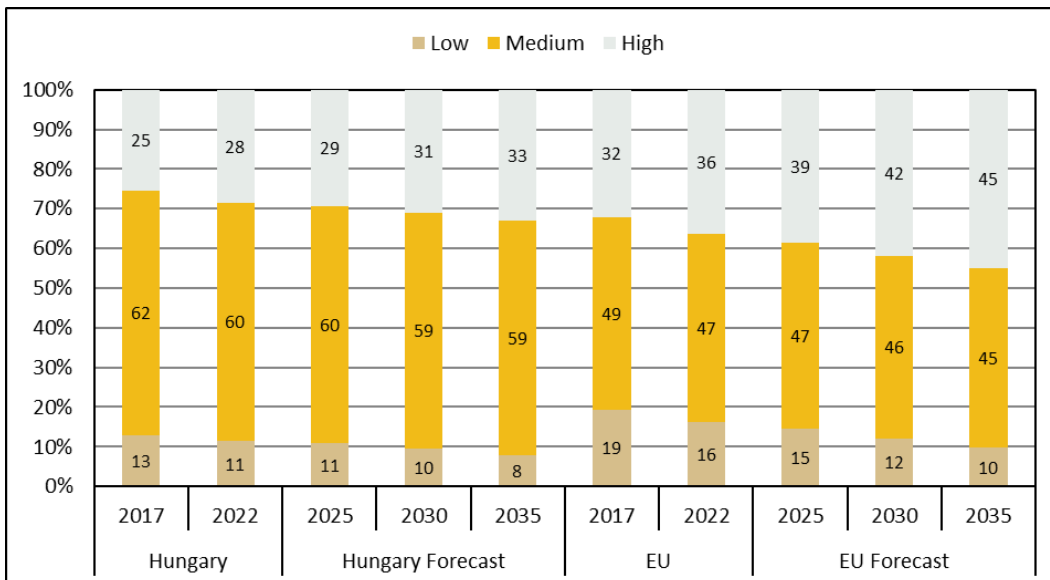
Figure 5. Shares of total job openings by level of qualification, 2022-35



Source: Cedefop (2025 Skills Forecast).

Future labour supply trends depend on the size of the working-age population (defined as those aged 15 or older), labour market participation rates, and the extent to which people acquire formal qualifications.

Figure 6. Labour force by qualification level



Source: Cedefop (2025 Skills Forecast).

Hungary is expected to experience some changes over 2022-35 in the shares of qualifications in the labour force, as seen in Figure 6. Hungary's share of people with high-level qualifications is expected to increase to 33% in 2035. The share of the medium qualified labour force, Hungary's largest qualification group, is expected to remain fairly stable (59% in 2035). Those with low levels of qualification are expected to fall slightly, to 8%. In Hungary, the proportion of the labour force with medium-level qualifications remains significantly higher than the EU-27 average.

In Hungary, the supply of high-skilled workers is expected to be below what is required by demand by 2035, while the supply of low and medium-skilled workers is expected to broadly meet the demand for those qualifications.

The **labour shortage index** is a method to summarise three elements of potential labour shortage: (1) employment growth, (2) replacement demand, and (3) Supply/Demand imbalance (FIOD). The outcomes at the occupation level are grouped into four quartiles: those with a low indication of shortage get the value 1, and those with the highest indication of shortage will get the value 4. The total outcome of the individual elements is a simple average of the elements. In Figure 6, the length of the bar gives the overall outcome, where higher levels indicate more shortage. The outcomes of the three elements are also given to quickly evaluate the influence of employment growth - replacement demand, and - supply-demand imbalances.

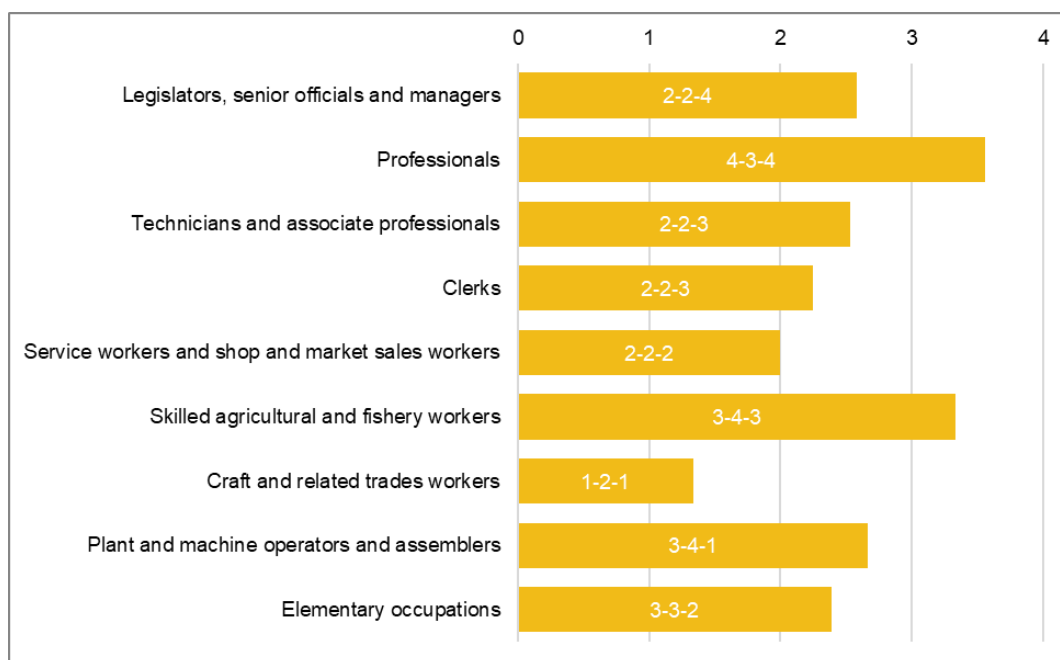
Hungary's labour market is tight, and it is expected to remain tight throughout the forecast period. Hiring difficulties arise mainly among highly qualified workers.

The labour shortage index is calculated at the ISCO 2-digit level and then aggregated to the ISCO 1-digit level. The first number in Figure 7 gives the quantile of the growth, a 4 being the highest quantile of growth and 1 the lowest. The second number reflects replacement demand. The third is the imbalance, usually dominated by low/intermediate qualified in our forecast.

The highest value of the labour shortage index can be found among *Professionals*. This is driven by the growth of the underlying occupations along with their high replacement needs. Among skilled manual occupations, the highest shortages are expected among *skilled agricultural and fishery workers* (3-4-3) who have among the highest replacement demand. Among the skilled non-manual occupations, the highest shortage is expected among *clerks* (2-2-3). This is driven by being among the second highest group for skills imbalances and the third highest for replacement demand and job growth. Among high-skilled workers, *professionals* (4-3-4) are expected to have the highest shortage. This is driven by growth of the underlying occupations along with their high imbalances. While the

shortage among *professionals* is driven by high employment growth along with high imbalances, both these components and replacement demand are slightly lower among *associate professionals*.

Figure 7. **Labour Shortage Index, 2022-35**



Source: Cedefop (2025 Skills Forecast).

## Cedefop methodology

The Cedefop Skills Forecast offers quantitative projections of future trends in employment, by sector of economic activity and occupational group. Future trends in the level of education of the population and the labour force are also estimated. Cedefop's forecast uses harmonised international data and a common methodological approach allowing cross-country comparisons between employment trends in sectors, occupations and qualifications. The forecast and methodology is validated by a group of national experts. The forecast does not substitute national forecasts, which often use more detailed methodologies and data, while they also incorporate in-depth knowledge of a country's labour market.

The latest round of the forecast covers the period up to 2035. The forecast takes account of global economic developments up to November 2023. The European Economy is expected to grow despite monetary tightening on phasing out of fiscal support.

The key assumptions of the baseline scenario incorporate the Eurostat population forecast available in June 2023 (Europop 2023) <sup>(1)</sup>, and the short-term macroeconomic forecast produced by DG ECFIN in November 2023 <sup>(2)</sup>. The source of historical labour force data is the European Labour Force Survey, which in 2022 underwent important methodological changes, causing a break in the time series for several variables, including the labour force. Consequently, in many Member States, the participation rates in 2021 are noticeably above/below historical trends. Moreover, some Member States experienced significant revisions in the historical data series for sectoral employment from the National Accounts.

The Cedefop Skills forecast 2025 is consistent with the objectives set by the European Green Deal by incorporating suitable assumptions about additional investment, power sector technologies, energy balances, and carbon pricing.

Energy and commodity price forecasts from the World Bank and the IEA are used as inputs to the Cedefop Skills Forecast.

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(1) <https://ec.europa.eu/eurostat/web/population-demography/population-projections/database>

(2) [https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year\\_en](https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en)

For the latest update and access to more detailed Cedefop skills forecast data please visit:

[www.cedefop.europa.eu/el/events-and-projects/projects/forecasting-skill-demand-and-supply](http://www.cedefop.europa.eu/el/events-and-projects/projects/forecasting-skill-demand-and-supply)

For more details, please contact Cedefop's Skills Forecast team at:  
[Skills-Forecast@cedefop.europa.eu](mailto:Skills-Forecast@cedefop.europa.eu)

